OBJECTIVES

The Bay-Delta Program is unique in its approach to solving many of California's most significant environmental and water problems. The Program addresses four inter-related, interdependent resource management objectives concurrently:

- *Water Supply Reliability*
- *Water Quality*
- *Ecosystem Restoration*
- *Levee System Integrity*

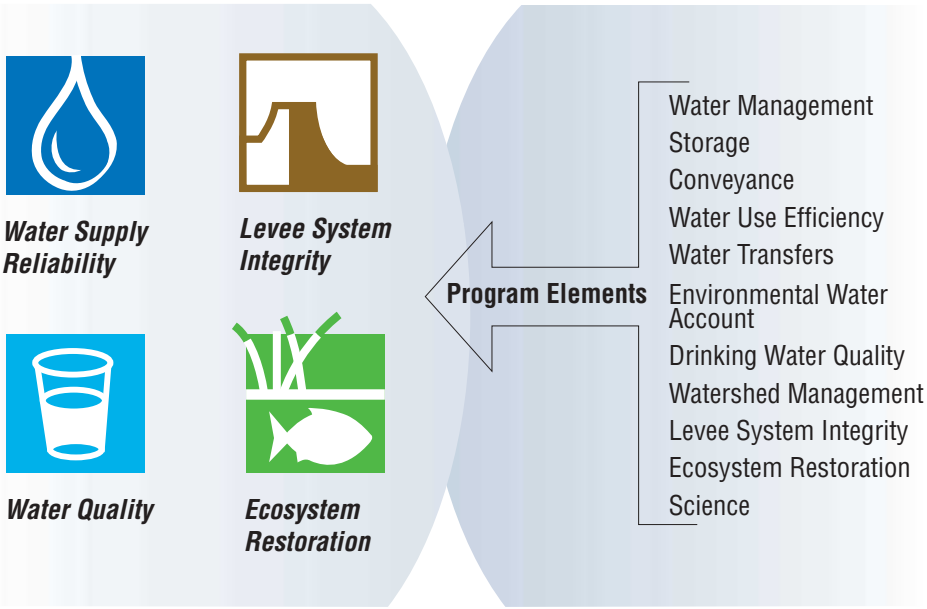
PLAN FOR RESOLVING THE BAY-DELTA CONFLICT

Launched in the summer of 2000 with broad public support, the CALFED Bay-Delta Program Record of Decision (Bay-Delta Plan) sets forth a 30-year plan to address ecosystem health and water supply reliability problems in the Bay-Delta. The document proposed actions and investments over the first seven years (Stage 1) to meet Program goals.

A BALANCED APPROACH

The Bay-Delta Plan is a balanced, comprehensive approach to reduce conflicts over limited water supplies and to address the Program's four objectives through 11 major program elements.

RESOURCE MANAGEMENT OBJECTIVES



WATER SUPPLY RELIABILITY

POTENTIAL WATER STORAGE PROJECTS

Shasta Enlargement
An increase in Shasta storage capacity by 300,000 acre-feet would increase the pool of cold water available to maintain lower Sacramento River temperatures for fish and improve water supply.

Sites Reservoir
This project, with a capacity of about 1.8 million acre-feet, would enhance water management flexibility in the Sacramento Valley and provide storage and operational benefits for other CALFED programs.

In Delta Storage
An In-Delta storage facility of 250,000 acre-feet would provide both fishery benefits and enhanced water project flexibility.

Los Vaqueros Enlargement
Expanding Los Vaqueros reservoir by 200,000 to 400,000 acre-feet would provide water quality and water supply reliability benefits to Bay Area water users.

San Joaquin Storage
Additional storage of 250,000 to 700,000 acre-feet in the upper San Joaquin River watershed would be designed to help restore and improve water quality for the San Joaquin River and facilitate conjunctive water management and water exchanges that improve the quality of water deliveries to urban communities.

Groundwater Storage
Groundwater Memorandums of Agreement
- *16 agreements with counties and local water management agencies*

Groundwater Grants and Loans
- *$107.6 million for 39 projects (Prop. 13, Chapter 8 Article 4 and Chapter 9 Article 2, and AB 303)*

The program encompasses an array of projects and approaches to improve water supply reliability and ensure efficient use of the resource. Working with local and regional agencies, the program has identified actions that could increase California water supplies over the next 30 years. Highlights include:

BAY-DELTA PLAN

- **Surface Storage:** Expand surface storage capacity at existing reservoirs and strategically located off-stream sites by 3.5 million acre-feet: North-of-the-Delta off-stream storage, Shasta enlargement, Los Vaqueros expansion, In-Delta storage and additional storage in the Upper San Joaquin (Friant), or a functional equivalent.
- **Groundwater:** Develop locally managed and controlled groundwater and conjunctive-use projects in the Sacramento and San Joaquin valleys with a total of 500,000 to 1 million acre-feet of additional storage capacity.
- **Conveyance:** Increase permitted pumping capacity at State Water Project (SWP) facilities from current limit of 6,680 cubic feet per second (cfs) to 8,500 cfs and eventually to 10,300 cfs. Design and construct new fish screens at Clifton Court Forebay and Tracy pumping plant, and dredge and install permanent operable barriers to improve water levels and water quality in the South Delta.
- **Water Use Efficiency:** Implement an aggressive water-use efficiency program to make the best use of existing water supplies, including: definition of appropriate water measurement; certification of urban best management practices (BMPs) and refinement of quantifiable objectives for agricultural water use efficiency.
- **Water Transfers:** Promote an effective water transfer market that protects water rights, the environment and local economies.

Shasta Dam

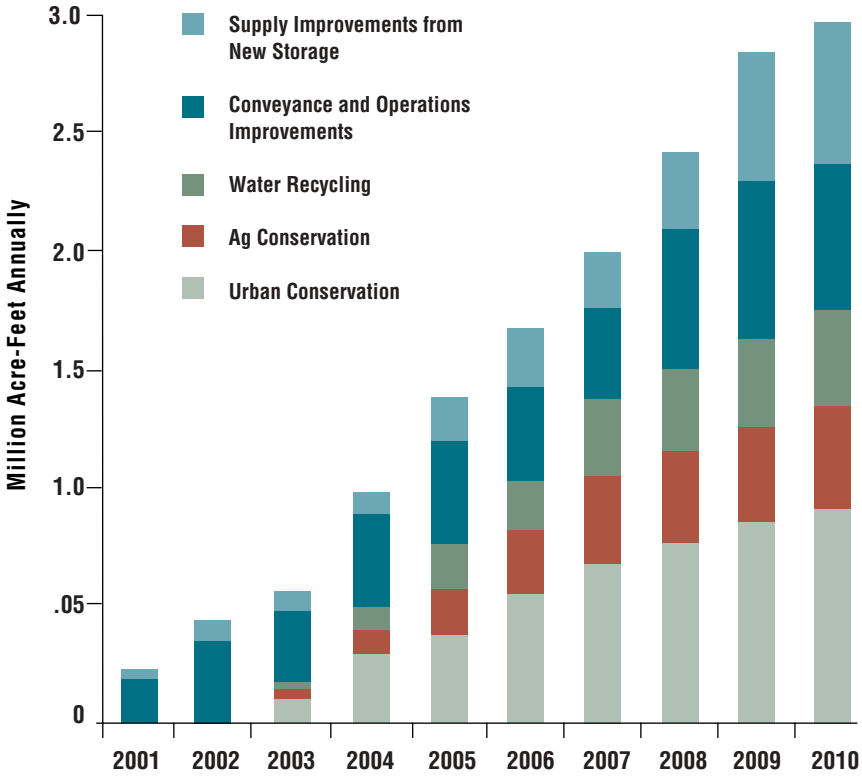
WATER SUPPLY RELIABILITY

2002 PRIMARY ACCOMPLISHMENTS

STORAGE

- Awarded 39 groundwater storage grants and loans totaling more than $107 million under Proposition 13 and AB 303.
- Filed North-of-Delta Off-Stream Storage Notice of Preparation/Notice of Intent (NOP/NOI) and completed public scoping.
- Completed In-Delta Storage Draft Summary Report including analysis of alternatives.
- Completed Draft Concept Report for Los Vaqueros expansion.

POTENTIAL IMPROVEMENTS IN WATER SUPPLY RELIABILITY



POTENTIAL IMPROVEMENTS IN WATER SUPPLY RELIABILITY

WATER MANAGEMENT ACTION

Water Use Efficiency (first 7 years)	**Acre-Feet/year**
Urban Conservation	520,000 to 690,000
Agricultural Conservation	260,000 to 350,000
Water Reclamation	255,000 to 310,000
Potential Increase from Water Use Efficiency	**Up to 1.4 Million Acre-Feet/year**
Conveyance and Operational Improvements	**Up to 600,000 Acre-Feet/year**
Includes: SWP Pumping of (b)(2) Upstream Releases, Export/Inflow Ratio Flexibility, Increased Banks Pumping Plant Capability, Joint Point of Diversion and San Luis Bypass	
Potential Increase from New Storage	**600,000 to 900,000 Acre-Feet/year***
Total Potential Increase in Water Supply Reliability from Water Use Efficiency, Conveyance and Operations Improvements and New Storage	**Up to 2.9 Million Acre-Feet/year**

POTENTIAL NEW STORAGE CAPACITY*

CALFED Storage Projects	**Acre-Feet**
Enlarge Shasta Lake	300,000
Enlarge Los Vaqueros Reservoir	200,000 to 400,000
In-Delta Storage	250,000
Sites Reservoir	1,800,000
Upper San Joaquin River Storage	250,000 to 700,000
Groundwater Storage and Conjuctive Use	500,000 to 1,000,000
Total Potential New Storage	**4.5 Million Acre-Feet**

Storage Capacity versus Water Supply Reliability

Total increase in storage capacity is not a direct measure of increased water supply reliability. The estimate of increased water supply reliability provided here is the quantity of water expected to be available annually from new storage during extended dry periods.

New storage capacity would also be used to provide improved flows and reduced effects of diversions for fish, improved water quality, and improved conjunctive management of surface and groundwater.

WATER SUPPLY RELIABILITY

2002 Accomplishments continued

CONVEYANCE

- Continued work on South Delta Improvements Program.
- Completed Clean Water Act Alternatives [404(b)(1)] analysis and continued work on EIR/EIS for permanent barriers.
- Continued EIR/EIS for North Delta Flood Protection and Ecosystem Restoration, and developed a North Delta regional hydraulic model.
- Conducted research and monitoring related to fish movement and water quality at the Delta Cross Channel to support through-Delta conveyance.

ON TAP
CALIFORNIA WATER MARKET INFORMATION

http://ontap.ca.gov

WATER TRANSFERS

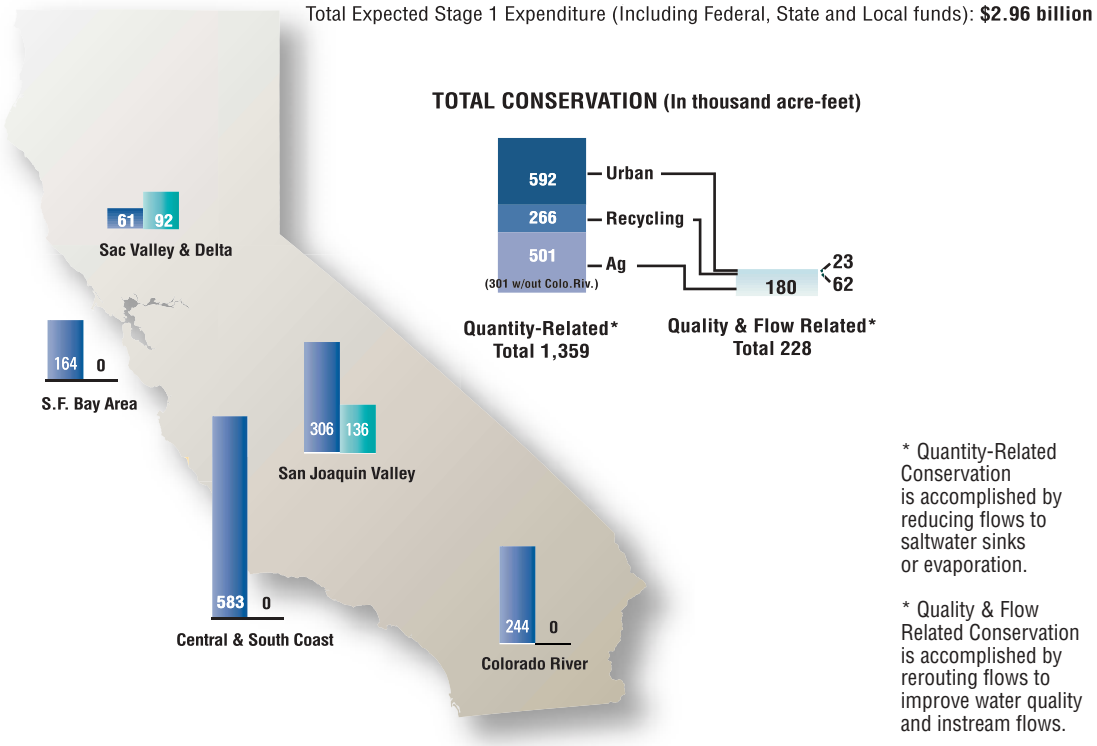
- Assisted in the transfer of water: 600,000 acre-feet in 2001, a dry year, and 300,000 acre-feet in 2002, a dry/below normal year.
- Continued operation of ON TAP website and developed a Department of Water Resources (DWR) water transfers web page.
- In coordination with the Bay-Delta Modeling Forum, developed and implemented an approach for real-time transfer carriage water requirements.

The California Aqueduct

WATER USE EFFICIENCY

- Awarded eight agricultural water conservation grants, valued at more than $1.3 million.
- Awarded 29 urban water conservation grants totalling more than $9 million. These projects are projected to conserve more than 100,000 acre feet of water.
- Awarded six recycling loans valued at $72 million and 24 recycling grants for almost $70 million. Local cost shares for these projects cover the remaining 75% of the project costs, making the total commitment in recycling more than $500 million in Year 2. These recycling projects will provide an increase of 36,000 acre feet of recycled water each year.
- Prepared a draft Urban Water Conservation Certification framework that will continue development in Year 3. Made progress on defining appropriate measurement of agricultural and urban water use.

EXPECTED STAGE 1 WATER CONSERVATION BY TYPE AND REGION



WATER QUALITY

The Bay-Delta Water Quality Program is focused on improving water quality from source to tap for 22 million Californians whose drinking water supplies come from the Bay-Delta watershed.

BAY-DELTA PLAN

- Develop and implement source improvement and drainage management programs.
- Invest in treatment technology projects.
- Develop Bay Area Blending and Exchange Program (also known as the Bay Area Water Quality and Supply Reliability Program) to enable Bay Area water districts to cooperatively address water quality and reliability issues.
- Facilitate efforts to develop alternative sources of water supply for Southern California.
- Improve dissolved oxygen conditions in the San Joaquin River near Stockton.

2002 PRIMARY ACCOMPLISHMENTS

- Awarded 28 water quality grants worth $15 million for projects such as source water protection and assessment, agricultural pollution, and treatment technology.
- Began a strategic planning process through Drinking Water Subcommittee of the Bay-Delta Public Advisory Committee.
- Continued work on previously funded projects, such as the Bay Area Water Quality and Water Supply Reliability Project and studies regarding contaminant sources and loads.

Water quality grants will improve supplies from source to tap for 22 million Californians.

PROJECT HIGHLIGHTS

Sacramento

Urban Areas
- Steelhead Creek Water Quality Assessment

Delta

Science and Source Assessment
- Modeling of Delta Hydrodynamics
- Organic Carbon Dating
- Microbial Contamination in Delta
- Ion Exchange for Organic Carbon Removal

Delta Agricultural Drainage
- Rock Slough and Old River Drainage Management

Pollution Prevention and Source Control
- North Bay Aqueduct Alternative Intake Study
- Chemical Dosing for DOC Reduction (Cost split with ERP)

Agriculture
- North Bay Aqueduct Watershed BMPs
- Reducing Non-Point Total Organic Carbon and Nitrogen Exports From Rice Fields

Marinas and Recreational Boating
- The Water You Play In Is The Water You Drink

Bay

Treatment Technology
- Bromate Control

Southern California

Marinas and Recreational Boating
- Lake Perris Pollution

Urban Areas
- Assessing Contamination in Castaic Lake

Treatment Technology
- Integrating Ultraviolet Light

San Joaquin

Agriculture
- San Luis Drain Algae and TOC Control Project
- Orestimba Creek Watershed-Agriculture Water Quality Pilot Project
- Control of Agricultural Runoff
- Contaminants from Animal Feeding Operations
- Dairy Nutrient Management Program
- Agricultural Drainage Treatment: Intermediate-Scale Experiments

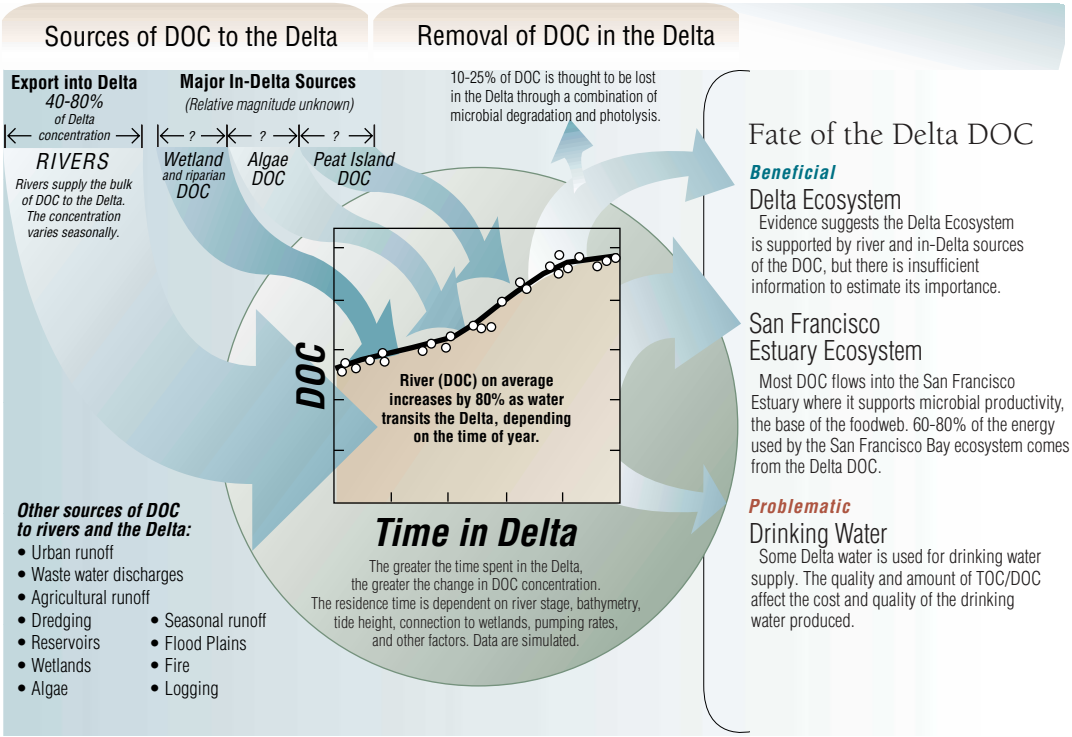
Watersheds
- County of Tuolumne Water Quality Plan
- Salt and Martinez Creeks Watershed Assessments
- Little Panoche and Cantua Creeks Watershed Assessment

Science and Source Assessment
- Vernalis Water Quality Monitoring Station
- Disinfection Byproduct-Forming Material in the State Water Project
- Real-Time Monitoring at San Luis National Wildlife Refuge

San Joaquin Valley Drainage
- Drainage recycling using membrane technology (cost split with ERP)

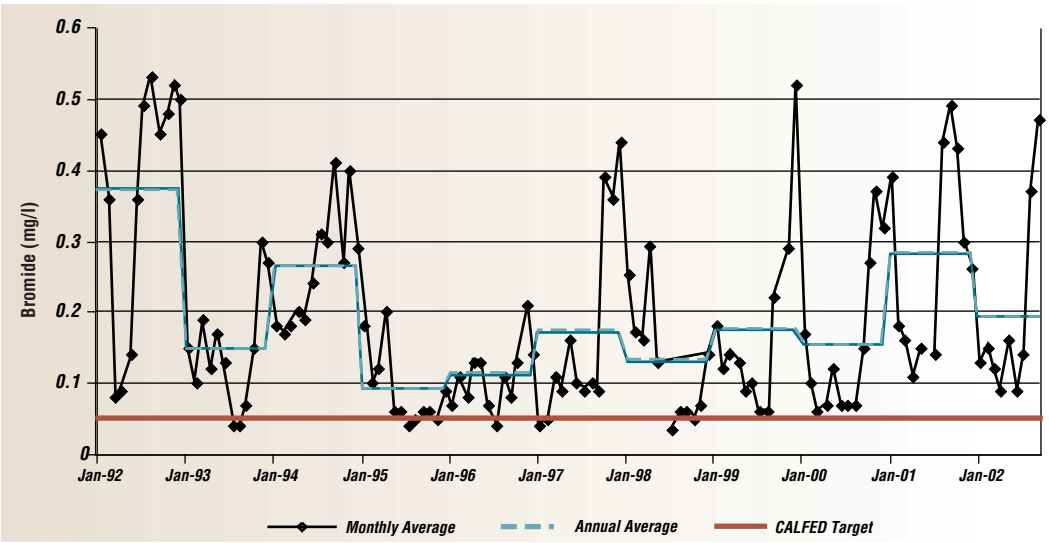
Total Organic Carbon (TOC) is an indicator of the quality of Delta water as a source of drinking water. In the Delta, total organic carbon (TOC) is composed primarily of dissolved organic carbon (DOC) plus a smaller amount of particulate organic carbon. Source water with high DOC and bromide concentrations requires additional treatment steps, is more costly to treat, and may lead to increased health risk from exposure to disinfection byproducts. This diagram is a conceptual model for organic carbon in the Delta. Although this diagram was prepared for DOC, the sources and fate of TOC are nearly identical.

CONCEPTUAL MODEL: SOURCE AND FATE OF DISSOLVED ORGANIC CARBON IN DELTA WATER



DRINKING WATER PERFORMANCE MEASURE

Monthly Average Bromide at Banks Pumping Plant

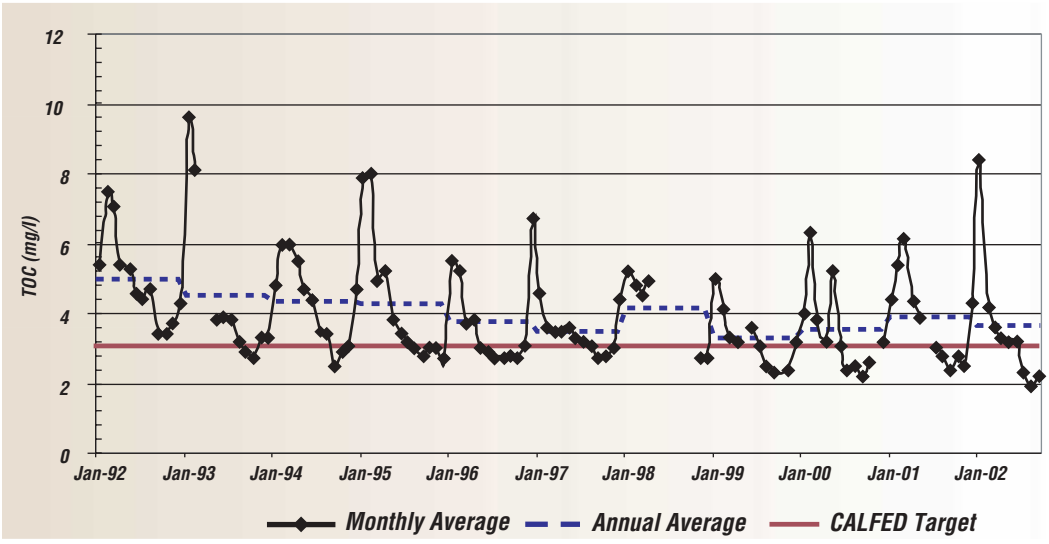


Data source: Department of Water Resources

This data shows that the bromide concentration has varied widely over the past 10 years, but is nearly always above the CALFED target. Since nearly all bromide in the Delta comes from sea water, concentrations are lowest when freshwater flows are the highest. Harvey O. Banks Delta Pumping Plant is the point where the majority of the water destined for municipal uses leaves the Delta.

DRINKING WATER PERFORMANCE MEASURE

Monthly Average TOC at Banks Pumping Plant



Data source: Department of Water Resources

The 10 years of data presented here clearly show the consistent annual cycle of TOC in the Delta. TOC typically meets the 3 mg/L CALFED target in late summer and fall and spikes well above this level in winter and spring during periods of high runoff.

LEVEE SYSTEM INTEGRITY

PROJECT HIGHLIGHTS

Reduce Levee Failures

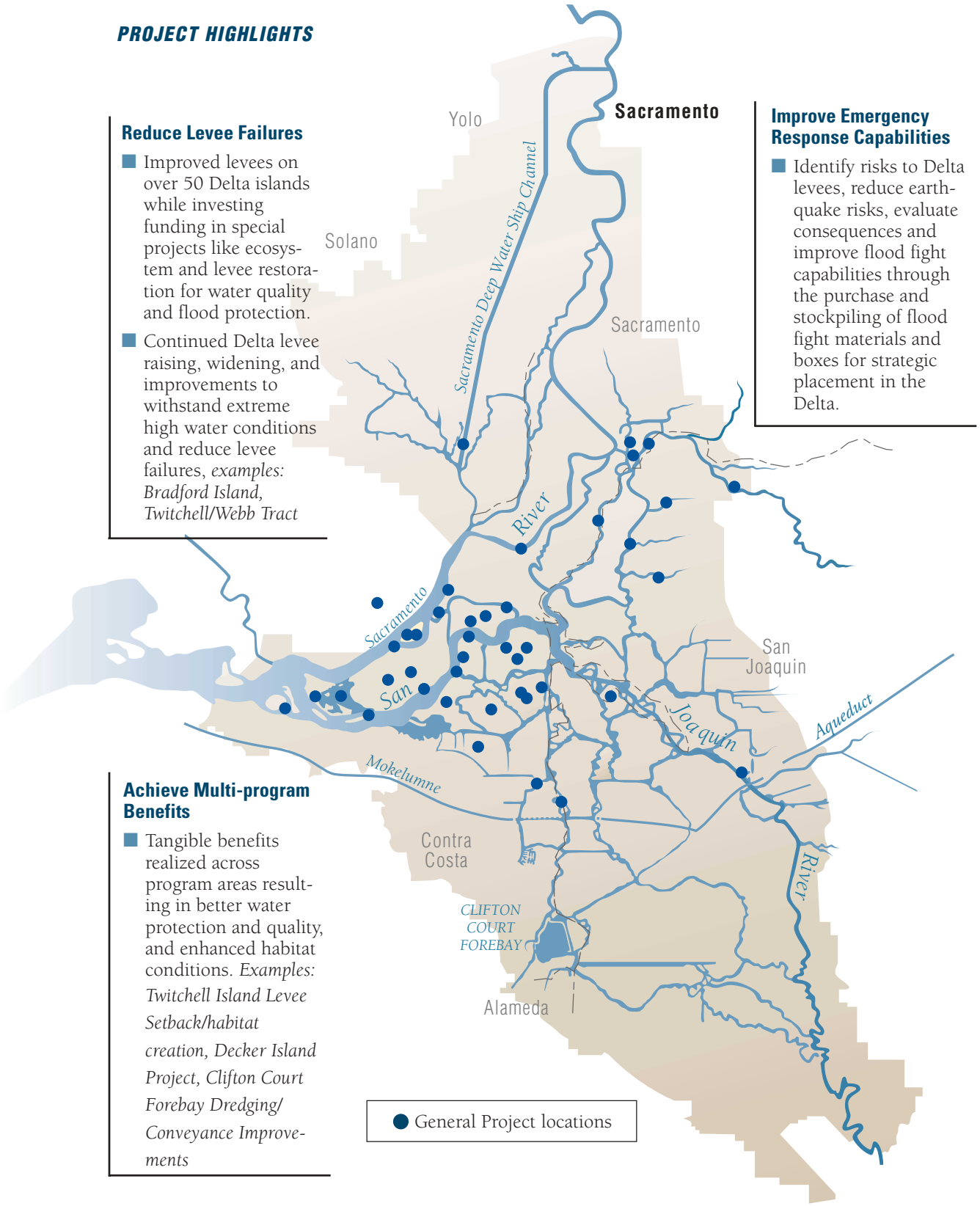
- Improved levees on over 50 Delta islands while investing funding in special projects like ecosystem and levee restoration for water quality and flood protection.
- Continued Delta levee raising, widening, and improvements to withstand extreme high water conditions and reduce levee failures, *examples: Bradford Island, Twitchell/Webb Tract*

Improve Emergency Response Capabilities

- Identify risks to Delta levees, reduce earthquake risks, evaluate consequences and improve flood fight capabilities through the purchase and stockpiling of flood fight materials and boxes for strategic placement in the Delta.

Achieve Multi-program Benefits

- Tangible benefits realized across program areas resulting in better water protection and quality, and enhanced habitat conditions. *Examples: Twitchell Island Levee Setback/habitat creation, Decker Island Project, Clifton Court Forebay Dredging/ Conveyance Improvements*



LEVEES

Bay-Delta levees protect water supplies and water quality needed for the environment, agriculture and urban users by reducing the threat of levee failure and seawater intrusion. Additionally, Delta levees protect a major interstate (I-5), roadways, cities, towns, agricultural lands and environmental and aquatic habitat.

Twitchell Island levee setback

BAY-DELTA PLAN

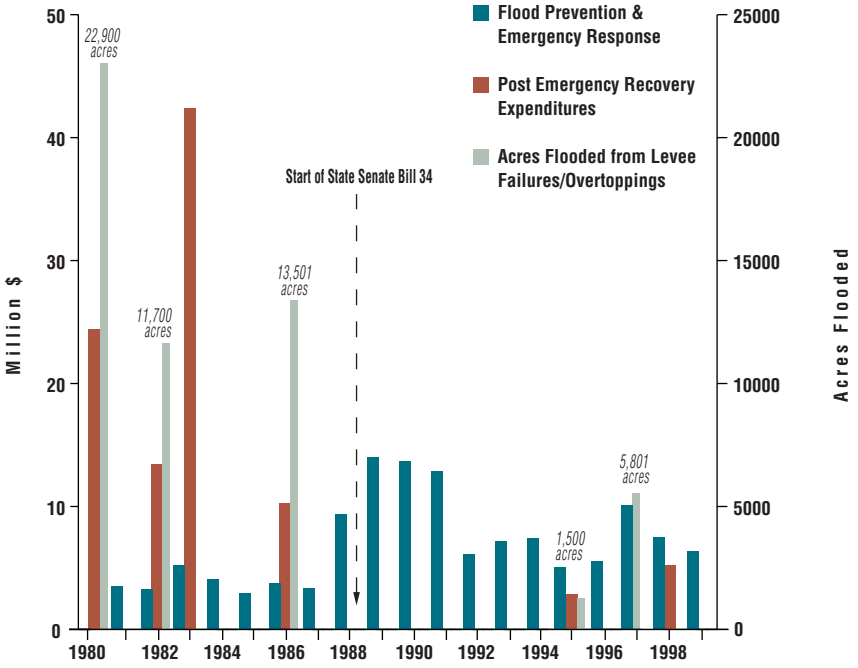
- Provide funding for local reclamation districts to reconstruct Delta levees to a base level of protection (PL 84-99).
- Increase levee stability on levees of particular importance to the Delta system for water supply and quality.
- Develop Best Management Practices for beneficial reuse of dredged material.
- Refine Delta Emergency Management Plan and development of a Delta Risk Assessment.
- Develop a management strategy to identify risks to Delta levees, evaluate consequences and recommend actions.

2002 ACCOMPLISHMENTS

- 62 agencies submitted $31.5 million in requests to maintain and repair almost 700 miles of levees - the state provided $4.5 million towards this effort.
- Completed levee stability enhancement projects on 5.7 miles of Delta levees.
- Continued work on 47 levee stability and habitat projects.
- Opened Decker Island aquatic habitat enhancement project to tidal flow.
- Improved emergency response capabilities in the Delta through improved coordination and acquisition of flood fight materials.

DELTA LEVEE FLOOD PREVENTION COSTS

POST DISASTER ASSISTANCE COSTS AND ACRES FLOODED



This indicator measures the number of acres in the Delta flooded each year. Flooding can cause significant damage, especially to agriculture, but to other land uses as well. Levees are also important for the control of salinity at key points in the Delta, and flooding at certain locations can thus threaten fresh water supplies crucial to a wide range of agricultural, urban, and ecosystem uses.

ECOSYSTEM RESTORATION & WATERSHED MANAGEMENT

PROJECT HIGHLIGHTS

Delta & East Side Tributaries

Ecosystem Restoration

- Upper Cosumnes River Watershed Conservation Project
- Restoration of eastern Delta Floodplain Habitats on Grizzly Slough in the Cosumnes River Watershed
- Staten Island Wildlife-Friendly Farming Demonstration
- Restoration and Monitoring of Riparian Habitat Corridors Along The Lower Mokelumne River
- McCormack-Williamson Tract Restoration: Wildlife-Friendly Levee Management
- Evaluation of Mercury Transformations and Trophic Transfer in the San Francisco Bay/Delta

Watersheds

- Plymouth Area Vineyard Erosion Control
- Upper Mokelumne River Watershed Assessment

Sacramento

Ecosystem Restoration

- Lower Butte Creek Project: Sutter Bypass - Willow Slough Weir Fish Passage Project - Preliminary Engineering Investigation
- Meridian Farms Water Company & Sutter Mutual Water Company-Tisdale Positive Barrier Fish Screen Pumping Plant
- Riparian Restoration Planning and Feasibility Study for the Riparian Sanctuary, Llano Seco Unit
- Comprehensive Assessment of Genetic Population Structure and Diversity for Central Valley Chinook Salmon
- Narrow 2 Powerplant Flow Bypass System
- Yuba Goldfields Fish Barrier Replacement Project

Watersheds

- Upper Spanish Creek, Bear Creek, Clear Creek, and Tehama West Watershed Assessment
- Yuba River Water Quality Monitoring Project: Phase II
- Deer Creek, Upper Trinity, Cottonwood Creek, Upper Pit River, South Yuba, and Stony Creek Watershed Management Programs
- Deer Creek Watershed Erosion & Sediment Control Project: Phase II
- Lower Clear Creek Spawning Gravel Injections
- Water Quality Improvement in Cow Creek Watershed
- Abandoned Mine Reclamation & Restoration
- Glenn County Surface Water Stewardship
- Colfax Community Watershed & Fire Safe Ecosystem Project

Bay

Ecosystem Restoration

- Suisun Marsh Land Acquisition and Tidal Marsh Restoration
- Sustainable Restoration Technologies for Bay/Delta Tidal Marsh and Riparian Habitat
- Bahia Acquisition and Tidal Wetland Restoration
- Selenium Effects on health and Reproduction of White Sturgeon in the Sacramento-San Joaquin Estuary

Watersheds

- Assessment for Wildcat/San Pablo Creeks
- Manage & Restore the Lower Rheem Creek Watershed
- Oakland Relief Watershed Protection Program

San Joaquin

Ecosystem Restoration

- Knights Ferry Gravel Replacement Project, Phase 2
- Patterson Irrigation District Fish Screen Design and Environmental Review
- Lower San Joaquin River Water Temperature Modeling and Analysis
- Tuolumne River/Big Bend Project
- Full-Scale Demonstration of Agricultural Drainage-Water Recycling Process Using Membrane Technology

Watersheds

- Finegold Watershed Planning
- Upper Merced River Watershed Management Plan
- Stewards of the Arroyo Pasajero CRMP
- Panoche Creek Stabilization Project

ECOSYSTEM RESTORATION AND WATERSHED MANAGEMENT

The Ecosystem Restoration Program is improving the ecological health of the Bay-Delta watershed through restoring and protecting habitats, ecosystem functions, and native species. CALFED's Watershed program offers the funding, coordination and technical assistance to support local watershed activities.

BAY-DELTA PLAN

- Annual grant program to fund local projects in habitat restoration, fish passage, invasive species management and environmental water quality.
- Habitat restoration in the Delta and its tributary watersheds.
- Stream flow augmentation in upstream areas through voluntary water purchases of up to 100,000 acre-feet annually for native fish.
- Fish passage improvements through modification or removal of dams, improved bypasses, and ladders.
- Integrate flood management and ecosystem restoration.
- Build local capacity to assess and effectively manage watersheds that affect the Bay-Delta system; develop watershed assessments and plans; implement specific watershed conservation, maintenance and restoration actions.
- Manage an Environmental Water Account to provide benefits to fish as well as water supply reliability to farms and cities.

Merced River floodplain and channel restoration to improve ecosystem function

2002 ACCOMPLISHMENTS

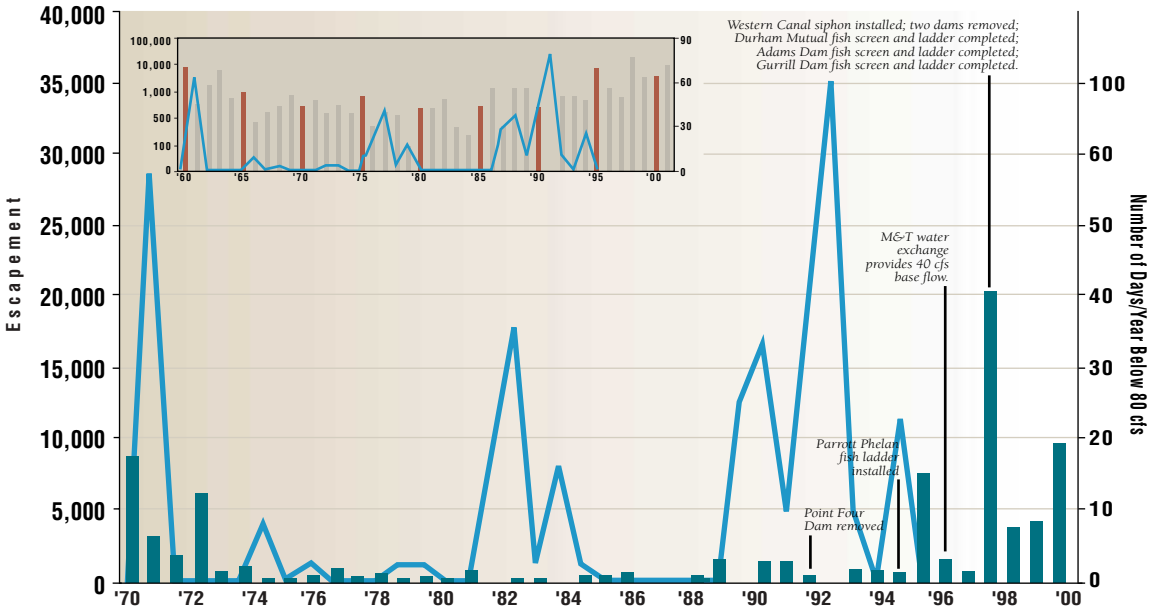
ECOSYSTEM RESTORATION

- Conducted a scientifically rigorous annual grant program and awarded funding for 59 ecosystem restoration projects totaling $63 million.
- Provided fisheries protection and water supply reliability commitments to water users through the Environmental Water Account; acquired 231,000 acre-feet of water, plus 84,000 acre-feet from the prior year, for the EWA to offset water supply reductions to farms and cities as a result of fish protection measures. About 248,000 acre-feet of water was used in 2002 for EWA actions.
- Completed the ERP Draft Stage 1 Implementation Plan and funded $6.3 million for 12 planning projects based on the Plan.
- Continued work on many ongoing activities including the Environmental Water Program, Yuba River Studies Program, Stockton Dissolved Oxygen Directed Action.

ECOSYSTEM RESTORATION & WATERSHED MANAGEMENT

ECOSYSTEM RESTORATION PERFORMANCE MEASURE

Spring Run Escapement for Butte Creek

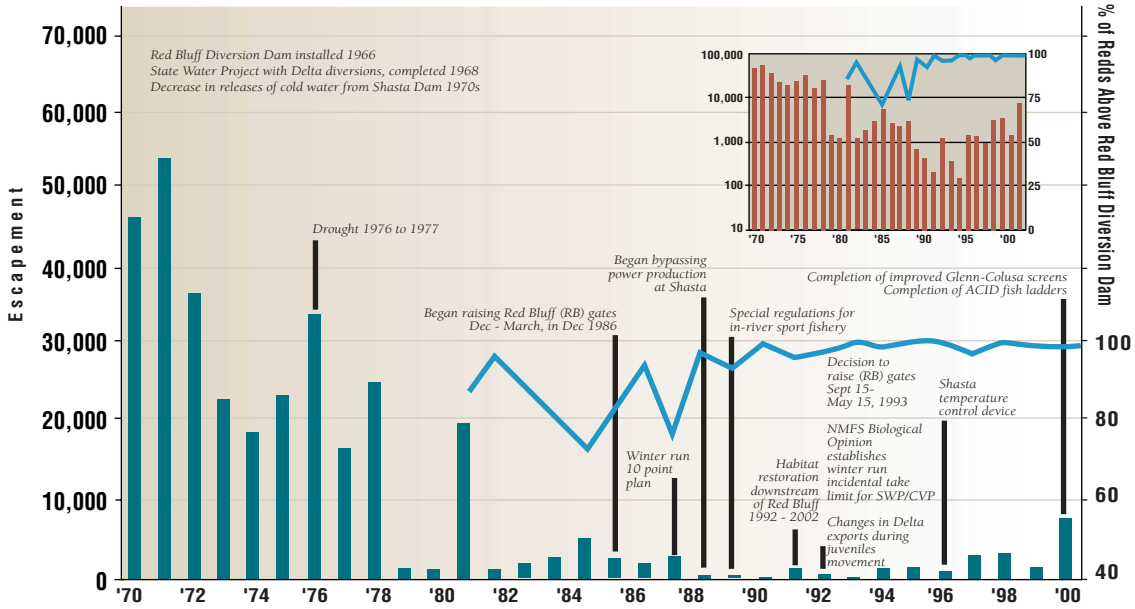


This data reports the escapement (the number of adult salmon escaping mortality and successfully returning each year to spawn) of adult spring-run Chinook salmon, a candidate species for listing under the Endangered Species Act, on Butte Creek. The Butte Creek population is one of the few remaining self-sustaining populations of spring-run Chinook salmon in the Central Valley. The spring-run in Butte Creek has been affected by significant impediments to upstream passage of adults stemming from dams, inoperative fish ladders, and the dewatering of portions of the creek as a result of water diversions. Since 1995, restoration actions have included dam removal, installation and/or repair of fish ladders and fish screens, and improvements to base flow.

Butte Creek

ECOSYSTEM RESTORATION PERFORMANCE MEASURE

Sacramento River Winter Run



This performance measure reports the escapement (the number of adult salmon escaping mortality and successfully returning each year to spawn) of adult winter-run Chinook salmon, an endangered species under the Endangered Species Act, on the Sacramento River. The Sacramento River population is the only remaining population of winter-run Chinook salmon in the Central Valley

2002 Accomplishments continued

WATERSHED MANAGEMENT

- Funded 129 watershed and environmental education projects.
- Initiated work on 51 projects funded in the first two years.
- Initiated a successful Year 2 grant funding process.
- Provided funding to support 17 local watershed coordinators.
- Sponsored the first Watershed Partnership seminar to be held in California.
- Held regional watershed meetings in Modesto, Los Angeles and Cache Creek in conjunction with the Bay-Delta Public Advisory Committee Watershed subcommittee.

SCIENCE

CALFED agencies are incorporating the best-available scientific knowledge into all CALFED activities and decisions. The Science Program is focusing on large-scale issues that cut across multiple program objectives and regions. Within each program area there are also specific science and project technical needs. Activities include:

BAY-DELTA PLAN

- Peer review of specific study designs, proposals submitted through grant solicitation, and final technical products.
- Balanced and unbiased descriptions of the state of science relative to a specific issue.
- Identification of **critical unknowns** needed to assess program performance or define types of activities needed to reach program goals.
- Refinement of predictive models and establishment of performance measures to inform and guide adaptive management.
- Specific data analyses and monitoring needed to support performance assessment.

CRITICAL UNKNOWNS

Strategic information gaps that, if filled, will help each program:

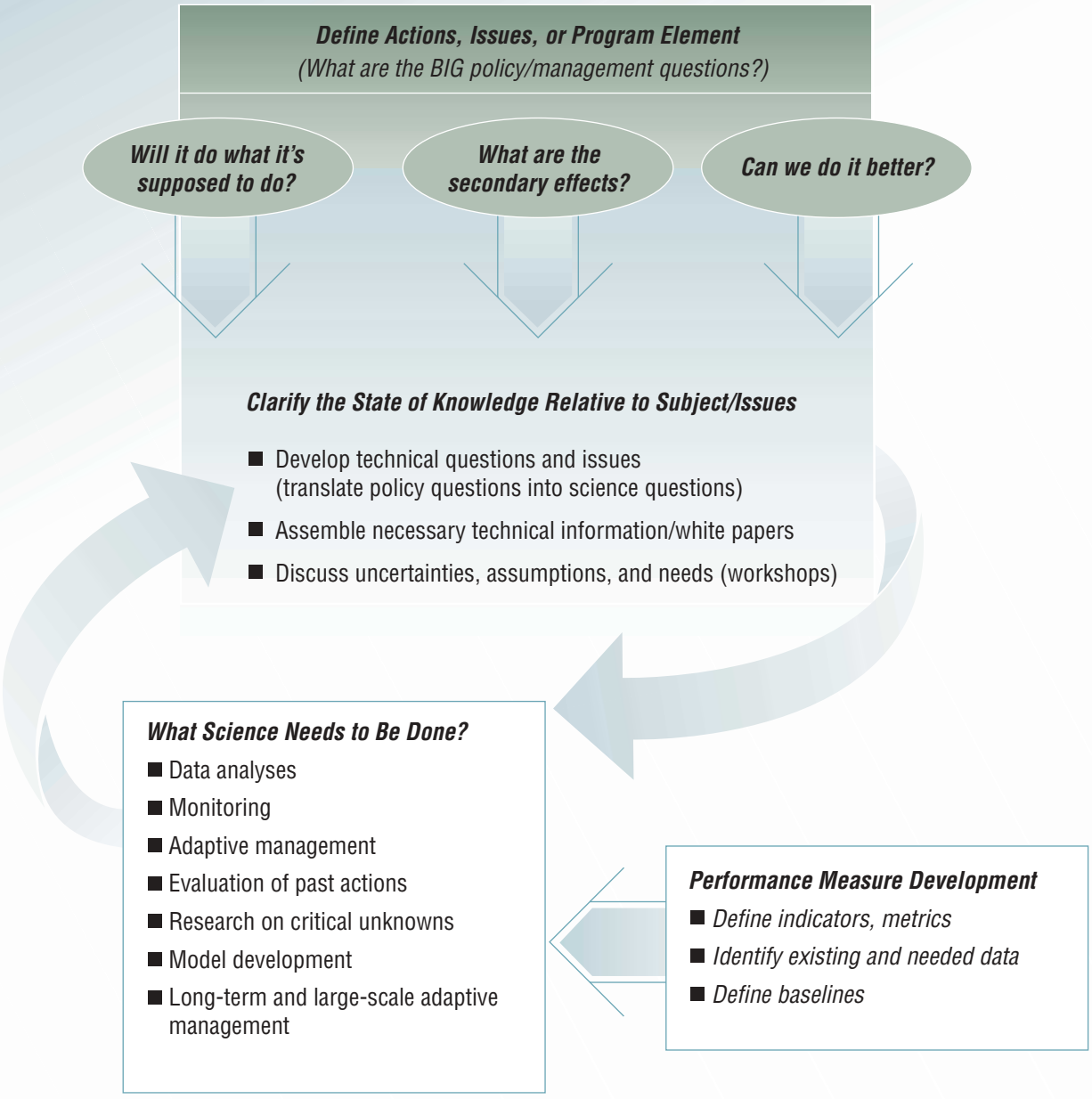
- *evaluate effectiveness of actions*
- *increase accuracy rate*
- *design & use more effective actions*

2002 PRIMARY ACCOMPLISHMENTS

- Assisted programs with technical and scientific peer review.
- Facilitated the development of performance measures for each of the four program objectives.
- Conducted five science workshops on salmon, delta smelt, data management, and Suisun Marsh modeling, and convened a public workshop on Water Operations for CALFED leaders and stakeholders.
- Convened EWA panel for the annual EWA science review.
- Co-sponsored the State of the Estuary Conference and planned the second CALFED Science Conference scheduled for January 2003.
- Initiated a new online technical journal for research related to water and ecosystem management scheduled to debut in early 2003.
- Continued development and support for the CALFED Science Consortium, a collaborative effort to link agency, university, and stakeholder scientific activities.
- Conducted Delta Cross Channel Program Review, and initiated a scientific review of the In-Delta Storage Project.

SCIENCE INTEGRATION

Adaptive Approach for Integrating Science Across Issues and Programs



PROGRESS AND BALANCE

The CALFED Bay-Delta Program has made significant progress in its second year of implementation. State and federal CALFED agencies allocated more than $340 million, primarily from state general obligation bond funds, for local projects in areas such as groundwater management, water-use efficiency, water recycling and ecosystem restoration.

Several key programs already are seeing measurable results, while others are making incremental advances due to funding, staffing and contracting constraints.

The following is a brief description of the status of each program element.

STORAGE

Efforts to expand groundwater storage remain ahead of schedule, with more than $107 million in grants and loans awarded to local agencies in 2002 for conjunctive water management projects. CALFED agencies completed the public scoping process for off-stream, North-of-Delta storage, and a draft summary report has been completed analyzing alternatives for In-Delta Storage. A draft concept report was completed in 2002 for potential expansion of Los Vaqueros Reservoir, and a preliminary report was released identifying potential sites for adding storage in the Upper San Joaquin system. Lack of funding or federal authority to participate in feasibility studies is pushing back the schedules for all five surface storage projects. The target date for completion of draft environmental documents on several of the projects has been pushed back to the end of 2004.

CONVEYANCE

CALFED agencies completed a draft analysis of the impact of permanent barriers and initiated the public scoping process for increasing periodic pumping to 8,500 cubic feet per second (cfs). The agencies initiated a North Delta hydraulic model as well as feasibility studies for drainage reduction on Veale and Byron tracts. Construction of permanent barriers and increasing pumping to 8,500 cfs are making good progress, but have been delayed one year to 2004. The CALFED agencies and stakeholders are re-evaluating the Program's approach to the Tracy Fish Test Facility and work on screening Clifton Court Forebay based on reduced availability of funds and other related technical issues. Feasibility studies and environmental review for San Luis Low Point are also moving forward, but their schedules have been revised due to expansion of the project's scope. North Delta Flood Protection and Ecosystem Restoration environmental review work has been delayed due to lack of funding and staff.

TRANSFERS

The program is on track and has met all deadlines to date. CALFED agencies assisted in the transfer of 300,000 acre-feet of water in 2002, and developed a memorandum of understanding for a Water Transfers Information Clearinghouse. White papers on transfers and related issues were published. The On Tap web site is operational, although contracting issues have delayed further refinement of the site into Year 3. Development of in-stream water tracking protocols has been pushed back due to delays in the Environmental Water Program.

WATER USE EFFICIENCY

The program continues to move forward with efforts to develop "appropriate measurement" of water use. CALFED agencies completed a draft framework for certifying urban Best Management Practices in 2002, and further refinement is planned for Year 3. More than $10 million in grants was awarded in 2002 for 37 agricultural and urban water conservation projects. In addition, more than $140 million in grants and loans was awarded for 30 local water recycling projects that will increase statewide recycling by 36,000 acre-feet per year. Contracting delays have affected awarding of some grants, and a lack of resources for defining performance measures and monitoring local water use efficiency projects is affecting CALFED's ability to evaluate the overall effectiveness of WUE actions. Grant funding is expected to fall below levels identified in the Bay-Delta Plan in Year 3 and beyond, which could impede progress on WUE goals and other programs linked to accomplishments in the WUE program.

ENVIRONMENTAL WATER ACCOUNT

Through use of the EWA, CALFED agencies provided fisheries protection and water supply reliability commitments to water users in 2002. EWA managers acquired 231,000 acre-feet of water, with 84,000 acre-feet carried over from the previous year. A total of 248,000 acre-feet was used to maintain deliveries to water users during export reductions due to fishery needs. The environmental review process for the EWA was initiated in 2002, and completion is expected in May 2003. The second annual science review of EWA operations was held, and new levels of multi-agency cooperation were reached on regulatory and fish protection issues. CALFED agencies are working to integrate EWA activities into the 2002-2003 water operations plan, and Tier 3 water assets are expected to be operational in 2003.

DRINKING WATER QUALITY

CALFED agencies awarded $15 million in 2002 for 28 water quality projects in the areas of source water improvements, agricultural pollution control and drainage, and treatment technology. Work continued on several previously funded projects, including the Bay Area Water Quality and Water Supply Reliability Project, and studies regarding contaminant sources and loads. Lack of funding and contracting issues have affected implementation of projects. Delays in assessing options to reduce bromide and total organic carbon impacts could have implications for other areas of the CALFED Program. Passage of Proposition 50 in November 2002 will provide significant funding to the drinking water quality program, which will help implementation efforts in this area.

WATERSHEDS

CALFED agencies provided $1.25 million to support 17 local watershed coordinators and sponsored the first-ever Watershed Partnership seminar in 2002. CALFED agencies finalized contracts and initiated work on 51 of 84 local watershed projects funded in the first two years of the program. A Year 3 grant funding process was initiated, with completion expected in 2003. Contracting delays have put project implementation behind schedule. Lack of authority for some federal agencies to implement the watershed program has affected staffing, technical assistance, science, education and outreach.

LEVEES

CALFED agencies provided $4.5 million for levee maintenance and repair in 2002, though requests totaling more than $31 million were received. Year 2 projects resulted in improvements to 5.7 miles of Delta levees, and work continued on another 47 levee stability and habitat projects. CALFED agencies improved emergency response capabilities in the Delta by enhancing coordination and acquiring flood fight materials. Significant funding reductions have severely delayed all aspects of the Levee Program, including efforts to improve Delta levees to a base level of protection (Public Law 84-99 standard).

ECOSYSTEM RESTORATION

CALFED agencies awarded $63 million in funding for 59 ecosystem restoration projects in 2002, including 12 planning projects based on the draft Stage 1 Implementation Plan completed in Year 2. Work continued on several ongoing activities, including the Environmental Water Program and the Upper Yuba River Studies Program, but delays are expected in Year 3 due to funding and contracting issues. Lack of funding and problems with contracting have delayed work on preparation of a Delta-wide Ecosystem Restoration Plan, while administrative and staff constraints have delayed development of ecosystem restoration planning activities.

SCIENCE

The Science Program conducted five issue-specific science workshops in 2002 on salmon, Delta smelt, data management, Suisun Marsh modeling and water operations. In addition to providing peer review and technical assistance to other programs, the Science Program continued development of performance measures for each program element and the CALFED Program as a whole. A new online technical journal was launched and several other activities were carried out in support of the CALFED Science Consortium. Science activities also have been constrained by contracting delays.

PROGRAM OVERSIGHT AND IMPLEMENTATION

Key accomplishments in 2002 included development and passage of state legislation providing a permanent governance structure for CALFED. The new Bay-Delta Public Advisory Committee was created, and continued refinements were made to the program-wide tracking system. Lack of state and federal funding has impeded progress on CALFED's water management and finance plan, tribal coordination and environmental justice activities.

YEAR 2 CONCLUSION

During Year 2, CALFED marked progress in every program area, particularly those supported by state bond funds such as groundwater storage, ecosystem restoration and water recycling. CALFED agencies provided technical assistance and more than $340 million in funding for local projects to improve water quality, restore habitats, expand storage and boost water use efficiency. The Environmental Water Account provided water to protect fish and stabilize water supplies, resulting in no major conflicts over water exports despite a second consecutive dry year. Interim water supply reliability efforts enabled the Central Valley Project and State Water Project to provide a 70% supply to their customers in a dry year.

Funding remains a critical challenge. When actual dollars are compared with budget levels identified in the Bay-Delta Plan, programs such as water quality, levees, agricultural water use efficiency and science have been underfunded. Progress in other key areas, including surface storage studies, conveyance and water use efficiency has been delayed due to funding constraints, lack of federal authority to participate and other factors.

However, establishment of CALFED's new governance structure in early 2003 and funding from the recently approved Proposition 50 will give the Program additional tools to address these funding shortfalls and to maintain balanced implementation.

YEAR 3 AND BEYOND

In Year 3 (fiscal 2002-'03), the state budget includes $503 million in funding for the CALFED Program, including $45.9 million in general fund support. Those numbers are expected to decrease, however, as the Legislature acts to reduce spending for all state programs to address a growing budget deficit. The President has proposed spending $15 million to support CALFED program goals, but final action on appropriations is not expected until early 2003. With the funds made available through the passage of Proposition 50, however, the Program will continue to make significant progress in all program areas, and to maintain its commitment to balanced implementation.